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An Abstract of
THE QUEST FOR THE PERFECT SEARCH ENGINE: VALUES,
TECHNICAL DESIGN, AND THE FLOW OF PERSONAL
INFORMATION IN SPHERES OF MOBILITY

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The freedom to move through both physical and intellectual space resonates within many of the fundamental values and aspirations of American culture, including free and open inquiry, personal autonomy, and liberty. These values are articulated in various spheres where freedom of mobility – both physical and intellectual – is typically enjoyed, ranging from the open highways, public libraries, and the Internet. New information and communication technologies are frequently designed to foster increased mobility within these spheres. Web search engines, for example, have emerged as a vital and increasingly ubiquitous tool for the successful navigation of the growing online informational sphere. As Google puts it, the goal is to “organize the world’s information and make it universally accessible and useful,” and to create the “perfect search engine” that would understand exactly what you mean and give back exactly what you want.

While intended to enhance intellectual mobility, this dissertation will reveal that the quest for the perfect search engine is actually a Faustian bargain: While designed to foster increased navigation within our spheres of mobility, the search for the perfect search engine also empowers the widespread capture of personal information flows across the Internet. Drawing from historical examples from other spheres of mobility – including vehicle tracking systems, library surveillance, and DRM – the dissertation will argue that the drive for the perfect search engine constitutes a violation of the contextual integrity of personal information flows, restricting the ability to engage in social, cultural, and intellectual activities online free from answerability and oversight, thereby

limiting users' full realization of the levels of autonomy, self-determination, and self-definition traditionally afforded within our spheres of mobility.

Working within the methodological framework of value-conscious design, this dissertation will engage in a conceptual investigation of the relevant values that might be supported or diminished by the design of the perfect search engine, as well as a technical investigation of the design features of the perfect search engine itself, thereby contributing to future pragmatic attempts to design the perfect search engine in order to protect the values traditionally enjoyed in our spheres of mobility.